

# PATENT ABSTRACTS OF JAPAN

(11) Publication number : 08-139554

(43) Date of publication of application : 31.05.1996

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(51) Int.Cl. H03H 9/10  
H03H 9/02  
H03H 9/17

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(21) Application number : 06-272055

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(22) Date of filing : 07.11.1994

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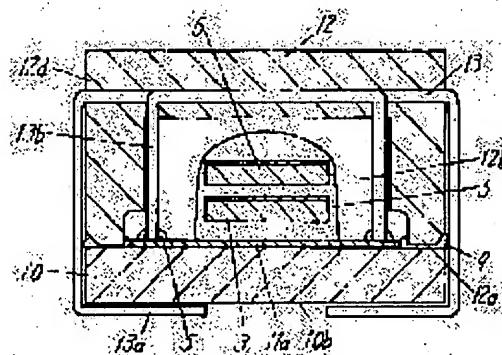
## (54) CERAMIC RESONATOR

### (57) Abstract:

PURPOSE: To obtain a ceramic resonator which has stable quality and performance and is small-sized and low in cost by forming a terminal plate of a metallic material integrally with a cap case, and adhering and fixing it with an insulating substrate in between.

CONSTITUTION: The terminal plate 13 as an outward lead-out electrode is formed integrally with the cap case 12 which contains a capacitance element 3 and a piezoelectric element 6. Then the terminal plate 13 is so folded that the insulating substrate 10 is sandwiched, and the cap case 12 and insulating plate 10 are adhered and fixed. This constitution restricts a cap case mounting shift, so the insulating substrate 10 is made small in area at low cost, and a small-area product can be obtained.

Further, the terminal plate 13 is used as an electrode to secure stable soldering not affected by adhesives. The cap case 12 is preferably molded out of resin material of  $\geq 260^{\circ}\text{C}$  in thermal deformation temperature integrally with the end plate 13.



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## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]